What is claimed is:

1. A scanning electron microscope comprising: an electron source; an image shifting deflector system including two deflectors disposed respectively at upper and lower stages to shift an irradiation position of a primary electron beam emitted by the electron source on a specimen; and an objective that focuses the primary electron beam;

wherein the objective has a lens gap opening toward the specimen, the deflector disposed at the lower stage on the side of the specimen forms a deflecting electric field in a region corresponding to an effective principal plane of the objective.

2. The scanning electron microscope according to claim 1, wherein the deflector disposed at the lower stage creates an electric field that suppresses off-axis deviation of the primary electron beam that will be caused by a magnetic field created by the objective.

3. The scanning electron microscope according to claim 1, wherein the image shifting deflector system serves also as a scanning deflector system for deflecting the primary electron beam to scan the specimen with the primary electron beam.

4. The scanning electron microscope according to

claim 1, wherein the deflector disposed at the lower stage is an octupole deflector.

5. The scanning electron microscope according to claim 4, wherein the octupole deflector has an insulating base plate provided with a primary electron beam passing aperture and insulating slits formed so as to extend radially from the electron beam passing aperture, and opposite surfaces of a part of the disk around the electron beam passing aperture and side surfaces of the electron beam passing aperture and the insulating slits are coated with conductive films.

6. The scanning electron microscope according to claim 5, wherein the insulating base plate has a conductive, cylindrical part formed around the primary electron beam passing aperture, and the conductive, cylindrical part of the insulating base plate is inserted in a primary electron beam passing aperture of the objective.

7. The scanning electron microscope according to claim 4, wherein the octupole deflector has a part inserted in a primary electron beam passing aperture of the objective and a shielding electrode is disposed so as to screen partly a deflecting electric field created by the octupole deflector.

8. The scanning electron microscope according to

claim 1 further comprising a secondary signal detector capable of detecting a secondary signal produced by the specimen, said secondary signal detector including a secondary electron conversion electrode that converts highly accelerated electrons produced when the specimen is irradiated with the primary electron beam into secondary electrons.

9. The scanning electron microscope according to claim 1 further comprising: a conversion electrode that emits secondary electrons upon bombardment with electrons emitted by the specimen when irradiated with the primary electron beam; and a secondary electron detector that deflects the secondary electrons emitted by the conversion electrode off the axis of the primary electron beam and detects the secondary electrons.

10. The scanning electron microscope according to claim 9, wherein the conversion electrode emits the secondary electrons when a specific part thereof is bombarded by the electrons.

11. The scanning electron microscope according to claim 1 further comprising a Wien filter for controlling off-axis aberration of the objective.

12. A scanning electron microscope comprising: an electron source; an image shifting deflector system including two deflectors disposed respectively at upper

and lower stages to shift an irradiation position of a primary electron beam emitted by the electron source on a specimen; and an objective that focuses the primary electron beam;

wherein a retarding electric field creating means that creates a retarding electric field for retarding the primary electron beam is disposed between the specimen and the objective, the objective has a lens gap opening toward the specimen, the deflector disposed at the lower stage on the side of the specimen is interposed between the objective and the specimen.

13. The scanning electron microscope according to claim 12 further comprising: a conversion electrode that emits secondary electrons upon bombardment with electrons emitted by the specimen when irradiated with the primary electron beam; and a secondary electron detector that deflects the secondary electrons emitted by the conversion electrode off the axis of the primary electron beam and detects the secondary electrons.

14. The scanning electron microscope according to claim 13, wherein an energy filter that discriminates energy is interposed between the conversion electrode and the specimen.

15. A scanning electron microscope comprising: an electron source; an objective that focuses the primary

electron beam emitted from the electron source; a scanning deflector means that deflects the primary electron beam to scan the specimen with the primary electron beam; an image shifting deflector means that shifts a center of scanning; a secondary signal detector that detects a secondary signal produced by the specimen when irradiated with the primary electron beam; and a height measuring means that measures height of the specimen by using a laser beam;

wherein the image shifting deflector means is a electrostatic electrode having multiple poles, and the laser beam travels through insulating slits formed between the multiple poles.

16. A scanning electron microscope comprising: an electron source; an image shifting deflector system including two deflectors disposed respectively at upper and lower stages to shift an irradiation position of a primary electron beam emitted by the electron source on a specimen; and an objective that focuses the primary electron beam;

wherein the objective has upper and lower magnetic poles, an opening formed in the lower magnetic pole is greater than an opening formed in the upper magnetic pole, the deflector disposed at the lower stage on the side of the specimen is interposed between the objective and the specimen.

17. A scanning electron microscope having an electron source, an image shifting deflector system including two deflectors disposed respectively at upper and lower stages to shift an irradiation position of a primary electron beam emitted by the electron source on a specimen, and an objective that focuses the primary electron beam; said scanning electron microscope comprising:

a setting means for setting a position to which the image shifting deflector system shifts an image; and

a setting negating means that, when a position set by the setting means is in a specific region including a center of a deflection range for the image shifting deflector system, negates the position set by the setting means or provides a warning.